Practice: solving equations with functions

1. If $f[38] = 22$, then there exists a knowable solution to the equation below.

$$y = 5 \cdot f[2x - 28] - 54$$

Find the solution. (The solution is the ordered pair (x, y) that makes the equation true.)

2. If $f[98] = 74$, then there exists a knowable solution to the equation below.

$$y = \frac{f[7\,(x - 6)]}{2} - 34$$

Find the solution. (The solution is the ordered pair (x, y) that makes the equation true.)

3. If $f[62] = 14$, then there exists a knowable solution to the equation below.

$$y = 9 \cdot f[2\,(x + 5)] - 76$$

Find the solution. (The solution is the ordered pair (x, y) that makes the equation true.)

4. If $f[40] = 54$, then there exists a knowable solution to the equation below.

$$y = \frac{f\left[\frac{x}{2} - 4\right]}{9} + 65$$

Find the solution. (The solution is the ordered pair (x, y) that makes the equation true.)

5. If $f[33] = 11$, then there exists a knowable solution to the equation below.

$$y = 4 \cdot \left(f\left[\frac{x + 52}{2}\right] + 3 \right)$$

Find the solution. (The solution is the ordered pair (x, y) that makes the equation true.)

6. If $f[75] = 72$, then there exists a knowable solution to the equation below.

$$y = \frac{f[3x - 27]}{18} + 22$$

Find the solution. (The solution is the ordered pair (x, y) that makes the equation true.)